Project Management (WBS 4.0) Plans to Respond to the October '03 Temple Review

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Recommendation 1

- **Work with Fermilab Directorate to provide needed support at the Project Manager level. If the dual roles persist, the appointment of a (Principal) Deputy Project Manager with experience in project management, who is authorized to make decisions, and is dedicated full-time to the project might fill the need.**

  - We acknowledge that we need help to manage the project. We have worked with the lab to recruit a suitable candidate. We believe that an appointment is imminent.

Recommendation 2

- **Provide resources in Beams Division (AD) and Technical Division (TD) to support the IR Conceptual Design for CD-1 and the Preliminary Design for CD-2. Provide funding for FESS staff and subcontract work necessary to complete the CDR for CD-1 and conduct advanced conceptual design for CD-2.**
  - ➢ **This is really a recommendation to the lab.**
  - ➢ **They have complied**
    - • **Mike Church (AD) has been appointed C0 IR Project Manager (WBS 2.0)**
    - • **Jim Kerby (TD) is in charge of Magnets**
    - • **Tom Lackowski of FESS is C0 Outfitting Project Manager (WBS 3.0)**

- **Mike Church, Leader**
  - **(PHG, helper)**
- **Accelerator Design – John Johnstone**
- **Mechanical – Rob Reilly**
- **Water Systems – John Riordan**
- **Electrical Systems Team:**

  Dan Wolff, George Krafczyk, Steve Hayes, Howie Pfeffer

  Tevatron Quench Protection - Kevin Martin
- **Cryogenic Systems – Jay Theilacker & Arkadiy Klebaner**
- **Low-β Element Quench Protection – Sharon Lackey**
- **Controls – Sharon Lackey**
- **Instrumentation – Stephen Pordes**

It is understood that more Accelerator design help is needed but this is a great start

- Project Leader for the C0 Conventional Construction is Tom Lackowski

  - The lab has provided FESS with the budget authorization to cover the development of the work through CD-1 (but not yet CD-2)

  - It is not yet clear how far past that they can go in FY04, due to funding issues

- **Project Leader: Jim Kerby**
- **Project Physicist: John Tompkins**
- **Project Engineer: Deepak Chichili**
- **Jim is building up a staff in TD to do the project**

Recommendation 3

- **Acquire additional staff in the Project Office needed to develop documentation in support of DOE Critical Decisions 0, 1, and 2. This would include a budget officer and permanent scheduler.**
  - ➢ **PPD is supporting the Project Office and is filling the vacant positions**
    - • **Bill Freeman became our Scheduler on Jan 1, 2004.**
    - • **PPD is looking for a Budget Officer for us. They are interviewing candidates**

- **Develop a project phasing scenario for completion of the conventional facilities and installation of detector components.**

  - ➢ **We held an Installation, Integration, and Commissioning Workshop on Nov 13, 2003. We have now received the lab's long term schedule. Using the approximate schedule of shutdowns, we have developed the requested phasing scenario, BTeV Document #2605.**

- **An additional focused Director's CD-1 Review on the IR, Conventional Facilities, and construction / installation phasing should be conducted prior to a DOE Lehman CD-1 Review**

  - ➢ **This was conducted by Ed Temple on February17,18 2004**

  - ➢ **The result was very positive**

- **Complete the formally required DOE project management documentation to support CD-0 immediately, CD-1 in the next few months and CD-2/3 in the coming six months.**
  - ➢ **Draft versions of all required documents exist**
  - ➢ **Further interaction with Fermilab management and DOE is required to move these from draft versions to approved documents**

- **Establish 2 or 3 important Milestones per year for each Level 2 system as PM milestones. A subset of these milestones can then be used in the formal project documentation such as the PEP and supersets can be used by Level 2 and 3 managers to manage their systems**

  - ➤ **We have begun this process and have captured them in OpenPlan (MLSTONE view). There is still a tendency for Level 2 managers to want too many milestones. Even with ONLY 2 or 3 per year, BTeV will have 25 – 35 milestones per year.**

- We have conducted and will continue to conduct reviews of the RLCS for each subproject
- We are working hard to improve our BOE and will continually update vendor quotes
- We will continue to do contingency by the "bottoms up" method
- We will also give you our rules for handling escalation and de-escalation.
- We will continually redo our Risk Analysis
- As the project proceeds, we will establish very strict management controls using formal project management tools and metrics to monitor the progress.

- **Some subprojects were told that they had to exercise configuration control**

- **This is correctly identified by Joe Howell as something for project management to develop**

- **Establish a rigorous configuration control system, controlled by the Project Office, in draft form before the DOE CD-1 review**

  This is a task for the Project Office not 1.10

The configuration management definition (IEEE Std-729-1983):

"Configuration is the process of identifying and defining the items in the system, controlling the change of these items throughout their lifecycle, recording and reporting the status of items and change requests, and verifying the completeness and correctness of items"

Identification

describes the system structure, the nature of its elements, their identity, and gives access to each item version

Control

organizes versions and changes to system items while keeping coherency and consistency on the complete system.

Configuration Management

- **We already have many elements of this**
  - Project baseline is TDR, managed in CVS (Code Versioning System)
  - CVS is also used for code and rapidly changing documents
  - We have a sophisticated Document Management System (DocDB) to keep track of all our documents. We apply it to outputs of key studies, reviews, and responses.
  - The Resource Loaded Cost and Schedule (OpenPlan) backup files are captured in this system
  - We are developing this system into a full-fledged Document Control system, with signoff approvals, and frozen versions
  - Drawing Management System – must try to use systems already in place but will have difficulty since three divisions and FESS are involved. If all else fails, will use the DocDB to control drawings, schematics, etc.
  - Change control procedure and documentation is in the DocDB
  - We will develop a Parameter Book that captures the TDR information and apply change control to this